Remarks

This amendment is in response to the Office Action dated November 2, 2004. Claim 1 has been amended to more particularly point out the features of the present invention. Claim 6 has been cancelled. Support for this amendment may be found in the specification and in original claim 6. Upon entry of this amendment, Claims 1-5, and 7- 21 are currently pending.

Rejections under 35 U.S.C. §103(a)

The Examiner rejects Claims 1-2, and 21 under 35 U.S.C. §103(a) as being allegedly unpatentable over Gibbons in view of Sugimori. Claims 3-4 and 10-13 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Gibbons, in view of Sugimori and further in view of Suzuki. Claims 5-9 and 14-14 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Gibbons in view of Sugimori and further in view of Bobrov. Claims 16-18 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Gibbons in view of Sugimori, and further in view of Kaneko. Applicant respectfully traverses these rejections and submits that the claims are patentable over the cited references.

To establish a proper prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the cited reference relied upon by the Examiner to arrive at the claimed invention. Second, there must be a reasonable expectation that the suggested modification or combination would be successful. Finally, the prior art reference (or references when combined) must teach or suggest each and every limitation of the rejected claims. The teaching or suggestion to make the claimed modification or combination and the reasonable expectation of success must both be found in the prior art, and not based upon in the applicant's disclosure. M.P.E.P. §706.02.

Gibbons teaches a process for aligning liquid crystals adjacent to the surface of a n optical alignment layer, and an optical element comprising at least one substrate, an optical alignment layer on a surface of the substrate and a liquid crystal layer on a surface of the optical alignment layer, where in the optical alignment layer comprises anisotroically absorbing molecules consisting essentially of at least one diaryl ketone. Gibbons does not teach or reasonably suggest a liquid crystal display where at least one of the front and rear panel

comprises a polarizer, said polarizer comprised of a thin crystal film manufactured from aromatic organic compounds, and the interplanar distance of the thin crystal film in the direction of any optical axis is 3.4±0.3A, and where and the alignment, material and thickness of the liquid crystal layer are such that at the mid-point of the rotational twist, the direction of liquid crystal directors coincide with an off-normal viewing direction of the liquid crystal display, as recited in Applicants claims.

Sugimori teaches a specific polyamic acid structure and a liquid crystal alignment film having a side chain containing a liquid crystal formation factor such as phenylcyclohexyl group or a phenylbicyclohexyl group, i.e. a mesogen group. Sugimori states generally that to improve responsibility and to secure bistability a pretilt angle of 1 to 4 degrees in terms of the TN mode, or 4 to 8 degrees in terms of the STN mode must be taken (col. 1 ll. 43 - 45) and further a pretilt angle of 20 to 30 degrees is required for the SBE mode (col. 1 ll. 46 – 50).

Applicant respectfully submits that the teaching of Sugimori or Gibbons, either alone or in combination, do not render obvious the present claims. Applicants have found a particular range that provides superior and unexpected results. Additionally, no where does Sugimori teach or reasonably suggest a polarizer comprised of a thin crystal film manufactured from aromatic organic compounds, and the interplanar distance of the thin crystal film in the direction of any optical axis is 3.4±0.3A, and where and the alignment, material and thickness of the liquid crystal layer are such that at the mid-point of the rotational twist, the direction of liquid crystal directors coincide with an off-normal viewing direction of the liquid crystal display, as recited in Applicants claims.

The Examiner suggests that claim 1 recites inherent properties. Applicant disagrees, and traverses this rejection.

In relying upon the theory of inherency, the Examiner has the burden to provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily flows* from the teaching of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily present* in

the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Applicants respectfully submit that the Examiner has not met the burden to show that the structure limitations of the liquid crystal display recited in instant Claim 1 is an inherent characteristic that necessarily flows from the teachings of Gibbons, Sugimori, or any of the other references.

Gibbons and Sugimori discloses different materials for the liquid crystal layer. Sugimori discloses different pre-tilt parameters, and Gibbons in silent on this parameter. Neither reference suggests thickness, let alone suggest that parameters are selected such that the direction of liquid crystal directors coincide with an off-normal viewing direction of the liquid crystal display. It does not necessarily flow that the devices in Sugimori or Gibbons (or the other cited references) would produce liquid crystal directors that coincide with an off-normal viewing direction. Moreover, as recited in claim 1 of the present invention, it is a combination of parameters - *i.e.* the alignment, material and thickness of the liquid crystal layer - that must be selected such that liquid crystal directors are produced that coincide with an off-normal viewing direction. Thus, a number of parameters may affect the outcome, and there may be a variety of combinations. Applicant respectfully submits that the Examiner has not shown that liquid crystal directors that coincide with an off-normal viewing direction as recited in instant Claim 1 are *necessarily present* in Gibbon and Sugimori. Courts have long held that inherency may not be established by probabilities or possibilities. *In re Robertson*, 169 F.2d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

Applicant respectfully submits that Suzuki adds nothing more. The Examiner argues that it would be obvious to use O-type /E/type polarizes and arrange the transmission axes of the polarizers and the alignment direction of the alignment layers in certain ways for the benefit of having high contrast liquid crystal displays. Applicant respectfully disagrees. It is not clear how one would accomplish alignment of the transmission axes of polarizers in Gibbons and Sugimori in the system of Suzuki, and there is no reasonable suggestion in the teachings. In fact, alignment has proven to be difficult and is dependent upon the materials used and the processing techniques. The systems and materials described in the various references are quite distinct. Additionally, Suzuki does not disclose or reasonably suggest, either alone or in combination a

liquid crystal display where at least one of the front and rear panel further comprises a polarizer, said polarizer comprised of a thin crystal film manufactured from aromatic organic compounds, and the interplanar distance of the thin crystal film in the direction of any optical axis is 3.4±0.3A, and where and the alignment, material and thickness of the liquid crystal layer are such that at the mid-point of the rotational twist, the direction of liquid crystal directors coincide with an off-normal viewing direction of the liquid crystal display, as recited in Applicants claims.

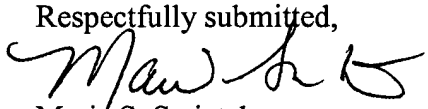
The Examiner cites Bobrov, however the document does not appear to have a date of publication and it is not clear whether the article is a proper reference. Thus, the Applicant reserves the right to attack this document as not a proper reference, pending determination of its publication date. As discussed above Gibbons and Sugimori do not teach or suggest the claimed invention. Applicant respectfully submits that there is no teaching or reasonable suggestion in Bobrov to combine the teachings with Gibbons and Sugimori.

Kaneko discloses a transflective liquid crystal display having a liquid crystal element composed of liquid crystal sandwiched between a first substrate and a second substrate, and a transflective layer installed on an inside of the first substrate, wherein the transflective layer is thin metal film having transparent portions formed by means of anodic oxidation. Kaneko does not teach or reasonably suggest the limitations of Applicant's amended claim 1. Moreover, even if one were to combine all of the teachings of the cited references, one would not arrive at Applicant's amended claims.

Applicant submits that the cited references, either alone or in combination, do not arrive at Applicant's amended claims.

In view of the foregoing, it is respectfully submitted that this application is now in condition for allowance. If any matters can be resolved by telephone, the Examiner is invited to call the undersigned attorney at the telephone number listed below. The Commissioner is hereby authorized to charge any other fees determined to be due to Deposit Account 50-2319 (Order No. A-72195/MSS (463031-102)).

Respectfully submitted,



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